

What is claimed is:

1. An electrophotographic apparatus comprising:
  - an electrophotographic photoconductor;
  - a charger for charging the electrophotographic photoconductor;
  - a light irradiator for irradiating a white light to the electrophotographic photoconductor charged by the charger, thereby forming a latent electrostatic image;
  - a developer for feeding a developing agent to the latent electrostatic image, thereby visualizing the latent electrostatic image to form a toner image; and
  - a transfer for transferring the toner image formed by the developer onto a transfer material, wherein
    - a surface of the electrophotographic photoconductor exposed by the light irradiator requires 200 msec or less to reach the developer,
    - an exposure energy when the write light having a resolution of 600 dpi or greater is irradiated from the light irradiator to the electrophotographic photoconductor is 5 erg/cm<sup>2</sup> or less on the surface thereof,
  - the electrophotographic photoconductor is obtained by stacking at least a charge generation layer and a charge transport layer in this order on a conductive support, and
  - the charge generation layer contains titanyl phthalocyanine crystals having, as a diffraction peak ( $\pm$

0.2°) of Bragg angle  $2\theta$  with respect to CuK $\alpha$  ray (wavelength: 1.542 angstrom), a maximum diffraction peak at least at 27.2°, main peaks at 9.4°, 9.6° and 24.0°, and a peak at 7.3° as a diffraction peak on the lowest angle side, and not having a peak within a range of from 7.4° to 9.3°.

2. An electrophotographic apparatus according to Claim 1, wherein the titanyl phthalocyanine crystals have not a peak at 26.3°.

3. An electrophotographic apparatus according to Claim 1, wherein the titanyl phthalocyanine crystals have an average primary particle diameter less than 0.3  $\mu\text{m}$ .

4. An electrophotographic apparatus according to Claim 1, wherein the charge transport layer contains at least a polycarbonate having, on the main chain and/or side chain thereof, a triarylamine structure.

5. An electrophotographic apparatus according to Claim 1, further comprising a protective layer on the charge transport layer.

6. An electrophotographic apparatus according to Claim 5, wherein the protective layer contains one of an inorganic pigment and a metal oxide having a specific resistance of  $10^{10} \Omega \cdot \text{cm}$  or greater.

7. An electrophotographic apparatus according to Claim 1, wherein the charge transport layer of the electrophotographic photoconductor has been formed

using a non-halogen solvent.

8. An electrophotographic apparatus according to Claim 7, wherein at least one solvent selected from cyclic ethers and aromatic hydrocarbons is used as the non-halogen solvent.

9. An electrophotographic apparatus according to Claim 1, wherein the conductive support of the electrophotographic photoconductor has an anodized surface.

10. An electrophotographic apparatus according to Claim 1, wherein a plurality of image forming elements each having at least a charger, a light irradiator, a developer, a transfer and an electrophotographic photoconductor have been arranged.

11. An electrophotographic apparatus according to Claim 1, wherein as the charger of the electrophotographic apparatus, a contact charging system is employed.

12. An electrophotographic apparatus according to Claim 1, wherein as the charger of the electrophotographic apparatus, a non-contact proximal charging system is employed.

13. An electrophotographic apparatus according to Claim 12, wherein a gap between a charging member for the charger and the electrophotographic photoconductor is 200  $\mu\text{m}$  or less.

14. An electrophotographic apparatus according to Claim 1, wherein alternating superposed voltage is applied to the charger of the electrophotographic apparatus.

15. An electrophotographic apparatus according to Claim 1, wherein the electrophotographic apparatus may have, installed thereon, a freely detachable process cartridge in which an electrophotographic photoconductor has been formed integral with at least one unit selected from a charger, light irradiator, developer and cleaner.

16. An electrophotographic apparatus according to Claim 1, wherein the write light is irradiated from the light irradiator at a resolution of 600 dpi or greater.

17. A process cartridge used as a detachable member and formed integral with an electrophotographic apparatus comprising:

an electrophotographic photoconductor;  
a charger for charging the electrophotographic photoconductor;

a light irradiator for irradiating a write light to the electrophotographic photoconductor charged by the charger, thereby forming a latent electrostatic image;

a developer for feeding a developing agent to the latent electrostatic image, thereby visualizing the latent electrostatic image to form a toner image; and

a transfer for transferring the toner image formed by

the developer onto a transfer material, wherein a surface of the electrophotographic photoconductor exposed by the light irradiator requires 200 msec or less to reach the developer, and an exposure energy when the write light having a resolution of 600 dpi or greater is irradiated from the light irradiator to the electrophotographic photoconductor is 5 erg/cm<sup>2</sup> or less on the surface thereof, which process cartridge comprises:

an electrophotographic photoconductor and at least one unit selected from a charger, a light irradiator, a developer and a cleaner,

said electrophotographic photoconductor being obtained by stacking at least a charge generation layer and a charge transport layer in this order on a conductive support, and containing, in the charge generation layer, titanyl phthalocyanine crystals having, as a diffraction peak ( $\pm 0.2^\circ$ ) of Bragg angle  $2\theta$  with respect to CuK $\alpha$  ray (wavelength: 1.542 angstrom), a maximum diffraction peak at least at  $27.2^\circ$ , main peaks at  $9.4^\circ$ ,  $9.6^\circ$  and  $24.0^\circ$ , and a peak at  $7.3^\circ$  as a diffraction peak on the lowest angle side, and not having a peak within a range of from  $7.4^\circ$  to  $9.3^\circ$ .

18. A process cartridge for electrophotographic apparatus according to Claim 17, wherein the write light is irradiated from the light irradiator at a resolution of 600 dpi or greater.

19. An image forming method comprising:

charging an electrophotographic photoconductor;

irradiating a write light to the electrophotographic photoconductor charged by the charger, thereby forming a latent electrostatic image;

developing by feeding a developing agent to the latent electrostatic image to visualize the latent electrostatic image into a toner image; and

transferring the toner image developed in the developing step onto a transfer material, wherein:

a surface of the electrophotographic photoconductor exposed in the exposing step requires 200 msec or less to reach the developing step,

a write light having a resolution of 600 dpi or greater is irradiated from a light irradiator to the electrophotographic photoconductor so that an exposure energy will become 5 erg/cm<sup>2</sup> or less on the surface thereof in the exposing step,

said electrophotographic photoconductor is obtained by stacking at least a charge generation layer and a charge transport layer in this order on a conductive support, and

said charge generation layer contains titanyl phthalocyanine crystals having, as a diffraction peak ( $\pm 0.2^\circ$ ) of Bragg angle  $2\theta$  with respect to CuK $\alpha$  ray (wavelength: 1.542 angstrom), a maximum diffraction peak

at least at  $27.2^\circ$ , main peaks at  $9.4^\circ$ ,  $9.6^\circ$  and  $24.0^\circ$ , and a peak at  $7.3^\circ$  as a diffraction peak on the lowest angle side, and not having a peak within a range of from  $7.4^\circ$  to  $9.3^\circ$ .

20. An image forming method according to Claim 19, wherein the titanyl phthalocyanine crystals have not a peak at  $26.3^\circ$ .